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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,296

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Peter Schramm

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EXAMINER

RAMOS, JAVIER J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,296	Applicant(s) SCHRAMM, PETER	
	Examiner JAVIER J. RAMOS	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 8-14 are pending in this application.
2. Claims 10, 12 and 14 have been amended [6/27/08].

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 6/27/08 was filed after the mailing date of the first Office Action on 3/21/08. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Objections

4. Claim 14 is objected to because of the following informalities: Claim 14 depends on the cancelled claim 1. It is unclear to the examiner which claim is the intended claim on which claim 14 should depend upon. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 8-10, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner (US 5,031,534) in view of Soler et al. (US 2003/0030828 A1).

7. In regards to claim 8, Brunner teaches a method for color correction in printing machines (**Col. 2, Lines 12-57**), comprising: (a) executing separately one after the other for individual process colors involved in an autotype combination printing (**Col. 2, Lines 12-25, Lines 51-57, “running again, one or more times, through the above-described process steps for every printing ink”**); changing only the color supply of a single process color (**Col. 2, Lines 12-28, “change he makes in an adjuster”**); determining the effect of the change in the color supply of this one process color on color values of a color spot to be measured (**Col. 5, Lines 26-30, Lines 38-52, use of the densitometer**);

It is noted however, that Brunner does not specifically teach storing a corresponding color spot for this color; (b) balancing all of the measurement values determined and stored in step (a) with each other so that for further color correction, a few or all of the process colors involved in the printing can be adjusted simultaneously.

On the other hand, Soler et al. (hereafter Soler) teaches storing a corresponding color spot for a color (**Page 2, [0048]; Page 3, [0051], “data storage device”; Fig. 7, Step 713, adding new color in the data book**) and balancing all of the measurement values determined and stored with each other so that for further color correction, a few or all of the process colors involved in the printing can be adjusted simultaneously (**Fig. 7, Step 709, manual evaluation of printed color map**).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the color spot measuring and storage technique of Soler into the color correction method of Brunner because both Brunner and Soler are directed to manipulating color in printing machines (**Brunner: Abstract; Soler: Abstract**); further, both Brunner and Soler are directed towards calibration of a printing machine (**Brunner: Abstract; Soler: Abstract**); and both Brunner and Soler are in the same field of endeavor.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the color spot measuring and storage technique of Soler into the color correction method of Brunner because the color spot measuring and storage technique of Soler would allow users of Brunner to more easily observe the specific changes in color through the usage of color spots and visual inspection and to save determined calibrated color spot values for future use.

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the techniques of Soler into the method of Brunner in order to achieve the predictable result of being able to visually balance and store color calibration levels for the printing device using a combination of both visual and digital inspection techniques.

8. In regards to claim 9, Soler teaches during the printing at least one color spot is measured (**Fig. 4, Step 401, "Scan patch color using internal scanner device of printer"; Fig. 7, Steps 702-703**), wherein for this measurement at least one actual chromaticity position is determined (**Fig. 7, Step 704, "CIEL*a*b value"**), and that the

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actual chromaticity position or each actual chromaticity position is compared with a corresponding desired chromaticity position (**Fig. 7, Step 705; Page 4, [0062], Lines 15-29, “a set of CIEL*a*b* variations are generated for colors surrounding the input color”**), wherein the color correction is performed when the actual chromaticity position deviates from the corresponding desired chromaticity position (**Fig. 7, Step 709; Page 4, [0062], Lines 32-40, “user manually evaluates the color spots visually, and selects a color spot”**).

9. In regards to claim 10, Brunner teaches control waits in step a) until a balanced state has been reached after a color supply of the corresponding color to be printed has been changed (**Col. 2, Lines 12-25, “the operator must wait for several hundred impressions until the new ink feed has stabilized”**).

10. In regards to claim 12, Brunner teaches in step (a), for each process color to be printed, the effect of the isolated change in a color supply of each process color on the chromaticity position of the color spot to be measured, is measured separately one after the other in time (**Col. 2, Lines 51-57, “running again, one or more times, through the above-described process steps for every printing ink and color area involved”**).

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11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner (US 5,031,534) in view of Soler et al. (US 2003/0030828 A1), as applied to claim 8, further in view of Fujimori (US 6,181,892 B1).

12. In regards to claim 11, Brunner, as modified by Soler et al. (hereafter Soler), teaches a method according to claim 8 and determining the measurement values of the chromaticity position or each chromaticity position in step a) (**Soler: Fig. 7, Step 704, “CIEL *a*b value”**).

However, Brunner, as modified by Soler, does not specifically teach at least one value is measured after a certain time period or at certain time intervals and control locks the changing balanced state through extrapolation.

On the other hand, Fujimori teaches at least one value is measured after a certain time period or at certain time intervals and control locks the changing balanced state through extrapolation (**Figs. 2A-2B, 4**).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the time shifted measurement method of Fujimori into the color correction method of Brunner, as modified by Soler, because both Brunner, as modified by Soler, and Fujimori are directed towards a printing device (**Brunner: Fig. 1; Fujimori: Fig. 1**); further, both Brunner, as modified by Soler, and Fujimori are directed towards color manipulation in halftoning devices (**Brunner: Abstract; Fujimori: Abstract**); and, both Brunner, as modified by Soler, and Fujimori are in the same field of endeavor.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the time shifted measurement method of Fujimori into the color correction method of Brunner, as modified by Soler, because the time shifted measurement method of Fujimori would allow the method of color correction of Brunner, as modified by Soler, to allow the ink sources to attain more stable levels before color measurement occurred.

Thus, it would have been obvious to one of ordinary skill in the art to incorporate the time shifted measurement method of Fujimori into the color correction method of Brunner, as modified by Soler, to yield the predictable result of increasing the long term accuracy of the color measurements due to a more stable state being reached between measurement times.

13. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunner (US 5,031,534) in view of Soler et al. (US 2003/0030828 A1) as applied to claim 8 further in view of Dolezalek et al. (US 4,901,254).

14. In regards to claim 13, Brunner as modified by Soler et al. (hereafter Soler), teaches it is determined how the corresponding chromaticity position shifts when changing the color supply of each process color (**Soler: Fig. 7, Steps 704-709; Page 4, [0062], Lines 32-40, “user manually evaluates the color spots visually, and selects a color spot”**).

It is noted however, that Brunner, as modified by Soler, does not specifically teach the magnitude and direction of a color vector are determined from the chromaticity positions before the color change and after the color change.

In analogous art, Dolezalek et al. (hereafter Dolezalek) teaches the magnitude and direction of a color vector are determined from the chromaticity positions before the color change and after the color change **(Fig. 8, the points A'-F' are measured which compare the difference between the measured value and the theoretical value, once corrected the color vectors will coincide with the theoretical value for the changed color point).**

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Brunner, as modified by Soler, by determining the magnitude and direction of color vectors, as taught by Dolezalek, in order to reduce the time it takes to influence the color appearance of an image by using vector operations **(Dolezalek: Abstract).**

15. In regards to claim 14, Brunner, as modified by Soler, teaches the determined and stored measurement values according to step (b) **(Soler: Fig. 7, Step 713, adding new color in the data book).**

It is noted however, that Brunner, as modified by Soler, does not specifically teach that measurement values are balanced through vector operations.

In analogous art, Dolezalek teaches that measurement values are balanced through vector operations **(Figs. 3-9; Abstract; Col. 7, Line 42 to Col. 8, Line 55,**

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measurements are taken of produced colors in a printing process and are modeled as vectors showing the difference between the actual and intended results leading to using scaling factors on the produced colors; Col. 11, Lines 13-20).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Brunner, as modified by Soler, by balancing measurement values through vector operations, as taught by Dolezalek, in order to reduce the time it takes to influence the color appearance of an image **(Dolezalek: Abstract)**.

Response to Arguments

16. Applicant's arguments filed on 6/27/08 have been fully considered but they are not persuasive. It is noted that the applicant failed to refer to specific claims and use actual claim language in the course of the arguments as they applied to the presented art rejections.

17. In response to the applicant's arguments on page 6, lines 11-15 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., *"ink feeding is controlled by a specific method wherein specific colors are measured one by one while changing the ink feed of only that color. The controlling of all colors together takes place only after this crucial stage, when the data of the single color variations are compared and the colors may be controlled in combination due to mapped similarities"*) are not recited in the rejected

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claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

18. In response to the applicant's arguments on page 6, lines 17-22 that the Soler reference fails to collect "data similar to that gathered in the instance invention," it is noted that Soler does gather chromaticity information as seen in Fig. 7, Steps 702-704, obtaining CIEL*a*b* values using a scanner. Further, it is noted that the features upon which applicant relies (i.e., *"each single color is measured in relation to variation of ink feed, so that comparable data are achieved. In this way, the color changes are comparable and it can be determined which ink feeds may be controlled in combination"*) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

19. In response to the applicant's arguments on page 6, lines 26 and 27 that the Fujimori reference fails to teach or suggest "to check single colors to determine which colors can be controlled in combination," it is noted that the Fujimori reference was not relied upon to teach the checking of single colors to determine which colors can be controlled in combination and instead was relied upon to teach using measurement intervals in comparing changes made to color patches.

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20. Applicant's arguments as presented on page 7, lines 1-5 have been considered but are moot in view of the new ground(s) of rejection as prompted by the applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 6/27/08.

Conclusion

21. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 6/27/08 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAVIER J. RAMOS whose telephone number is (571)

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270-3947. The examiner can normally be reached on Monday to Thursday - 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark K. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. J. R./
Examiner, Art Unit 2625

/Mark K Zimmerman/
Supervisory Patent Examiner, Art Unit 2625